

Notice of Allowability

Application No.

10/764,101

Examiner

Jennifer Doan

Applicant(s)

HARRINGTON ET AL.

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 8/2/07.
2. ☒ The allowed claim(s) is/are 1-12, 14-23, 25-28, 31 and 32.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


JENNIFER DOAN
PRIMARY EXAMINER

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on August 2, 2007 has been fully considered and entered.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In line 6 of claims 9 and 23, please delete "ratio of approximately 2.1" and insert -
- ratio of approximately 2:1-- (correcting the typo error).

Reasons for Allowance

3. Claims 1-12, 14-23, 25-28, 31 and 32 are allowed.
4. The following is an examiner's statement of reasons for allowance:

The prior art of record fails to disclose or reasonably suggest all the limitations recited in claims 1 and 16. Specifically, the prior art of record fails to disclose a flexible, hollow waveguide for transmitting radiation in visible and IR regions, comprising a composite of dielectric, paired sulfide-containing materials forming a photonic, bandgap

tube transmitting in the visible and IR regions in combination with the other limitations of claims 1 and 16.

Claims 2-8 depend from claim 1.

Claims 17-22 depend from claim 16.

The prior art of record also fails to disclose or reasonably suggest all the limitations recited in claim 9. Specifically, the prior art of record fails to disclose a flexible, hollow waveguide comprising a composite of dielectric materials disposed upon the metallic layer featuring disparate refractive indices with a ratio of approximately 2:1, wherein the composite of dielectric materials form sulfide-containing layers in combination with the other limitations of claim 9.

Claims 10-12, 14 and 15 depend from claim 9.

The prior art of record also fails to disclose or reasonably suggest all the limitations recited in claim 23. Specifically, the prior art of record fails to disclose a flexible, hollow waveguide comprising a composite of dielectric materials disposed upon the smooth inner bore surface of said transparent annular body, featuring disparate refractive indices with a ratio of approximately 2:1, wherein the composite of dielectric materials respectively comprise two sulfide layers in combination with the other limitations of claim 23.

Claims 25-27 depend from claim 23.

The prior art of record also fails to disclose or reasonably suggest all the limitations recited in claim 28. Specifically, the prior art of record fails to disclose a method of fabricating a flexible, hollow waveguide using liquid phase deposition, comprising the steps of depositing two sulfide-containing layers, cadmium sulfide and lead sulfide, respectively, upon said metallic layer of step (a) in combination with the other limitations of claim 28.

The prior art of record also fails to disclose or reasonably suggest all the limitations recited in claim 31. Specifically, the prior art of record fails to disclose a method of fabricating a flexible, hollow waveguide using liquid phase deposition, comprising the steps of depositing at first layer of cadmium sulfide upon an inner, smooth bore surface of a hollow silica-glass tube; and depositing at least a second layer of lead sulfide over the first layer of cadmium sulfide in combination with the other limitations of claim 31.

Claim 32 depends from claim 31.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Doan whose telephone number is (571) 272-2346. The examiner can normally be reached on Monday to Thursday from 6:00am to 3:30pm, second Friday off.
6. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JD

August 12, 2007


JENNIFER DOAN
PRIMARY EXAMINER